Nicolas de Condorcet and the Condorcet method

Marie Jean Antoine Nicolas de Caritat, marquis de Condorcet (1743-1794)

On March 28, 1794, French philosopher, mathematician, and early political scientist **Nicolas de Condorcet** died a mysterious death in prison after a period of flight from French Revolutionary authorities. He is probably best known for the Condorcet method, which in voting tally selects the candidate who would beat each of the other candidates in a run-off election. Unlike many of his contemporaries, he advocated a liberal economy, free and equal public instruction, constitutionalism, and equal rights for women and people of all races.

"Enjoy your own life without comparing it with that of another."
– Nicolas de Condorcet

Nicolas de Condorcet – Youth and Education

Condorcet was born in Ribemont, present-day Aisne, France, and descended from the ancient family of Caritat, who took their title from the town of Condorcet in Dauphiné, of which they were long-time residents. He lost his father already at a young age, he was raised by his devoutly religious mother and further educated at the Jesuit College in Reims and at the Collège de Navarre in Paris. He quickly showed his intellectual ability, and gained his first public distinctions in mathematics. At age sixteen, Condorcet's analytical abilities gained the praise of Jean le Rond d'Alembert, under whom he would study at the Collège Mazarin in Paris.[1]

The Integral Calculus

From 1765 to 1774, he focused on science. In 1765, he published his first work on mathematics entitled *Essai sur le calcul intégral*, which was well received, launching his career as a mathematician. He would go on to publish more papers, and on 25 February 1769, he was elected to the Académie royale des Sciences. In 1772, he published another paper on integral calculus. Soon after, he met Jacques Turgot, a French economist, and the two became friends. Turgot was to be an administrator under King Louis XV in 1772, and became Controller-General of Finance under Louis XVI in 1774. In the same year Condorcet was appointed inspector general of the Monnaie de Paris (Paris Mint).[4]

Political Ideas

Condorcet worked with Leonhard Euler [5] and Benjamin Franklin. His political ideas, however, many of them in continuity with Turgot's, were criticized heavily in the English-speaking world, most notably by John Adams, who wrote two of his principal works of political philosophy to oppose Turgot and Condorcet's unicameral legislature and radical democracy.

The Encyclopaedia

"An enlightened people entrust their interests to educated men, but an ignorant people necessarily become the dupe of deceivers who, whether they flatter them or oppress them, make them the instrument of their projects and the victim of their personal interests."
– Nicholas de Condorcet, Sur l'instruction publique, 1791-1792

Condorcet was the friend of almost all the distinguished persons of his time and a zealous propagator of the progressive views then current among French literati. As friend and protégé of d'Alembert he took an active part in the preparation of the Encyclopédie.[8] He was elected to the permanent secretaryship of the Academy of Sciences in 1777 and to the French Academy in 1782 and was honorary member of many foreign academies and philosophic societies.

Condorcet's Paradox

Condorcet remains influential in the social sciences because he applied mathematical ideas to social and political problems. In 1785, he wrote *Essai sur l'application de l'analyse à la probabilité des décisions rendues à la pluralité des voix* (*Essay on the Application of Analysis to the Probability of Majority Decisions*), one of his most important works. This work described several now famous results, including *Condorcet's jury theorem*, which states that if each member of a voting group is more likely than not to make a correct decision, the probability that the highest vote of the group is the correct decision increases as the number of members of the group increases, and Condorcet's paradox, which shows that majority preferences can become intransitive with three or more options – it is possible for a certain electorate to express a preference for A over B, a preference for B over C, and a preference for C over A, all from the same set of ballots. To break such electoral circles, Condorcet invented a method in which voters rank candidates in order of preference; these electoral procedures are known as the Condorcet method, which is designed to secure a definite Condorcet winner.[4]

Biographies and the French Revolution

Condorcet published *Vie de M Turgot* (1786) and *Vie de Voltaire* (1789). In these biographies he showed that he favoured Turgot's economic theories and agreed with Voltaire in his opposition to the Church.[2] Condorcet took a leading role when the French Revolution swept France in 1789, hoping for a rationalist reconstruction of society, and championed many liberal causes. As a result, in 1791 he was elected as a Paris representative in the Assemblée, and then became the secretary of the Assembly. Condorcet was one of the first to declare for a republic, and in August 1792 drew up the declaration justifying the suspension of the king and the summoning of the National Convention. His draft of a new constitution, representative of the Girondins, the more moderate political group during the Revolution, was rejected, however, in favour of that of the Jacobins, a more radical political group whose dominating figure was Robespierre.[3] He opposed the so-called Montagnard Constitution of the Jacobins, which he thought was too radical and far-reaching. As a result, he was regarded as a traitor and a warrant was issued for his arrest. While in hiding, Condorcet wrote his famous Sketch for a Historical Picture of the Progress of the Human Mind, which was published posthumously in 1795. This major text of the French Enlightenment describes the historical connection between the growth of science and the development of human rights.[4]

Flight and Death

In March 1794 Condorcet fled from his hiding place in a Parisian house, as he no longer felt safe there. However, his escape from Paris ended after only three days, on March 27, 1794, with his arrest in Clamart and imprisonment. Depending on the source, he died the same day or two days later. Even the cause of death has not been completely clarified: some claim that he was poisoned by his captors, others assume suicide or even death from exhaustion.

Related Work and Further Reading:

- [1] Jean Baptiste le Rond d'Alembert and the Great Encyclopaedy, SciHi blog, November 16, 2012.
- [2] O'Connor, John J.; Robertson, Edmund F., "Marie Jean Antoine Nicolas de Caritat Condorcet", MacTutor History of Mathematics archive, University of St Andrews.

- [3] Marie-Jean-Antoine-Nicolas de Caritat, marquis de Condorcet – French philosopher and humanist, at Britannica Online
- [4] "Condorcet, Marquis de." International Encyclopedia of the Social Sciences. 2008. Encyclopedia.com.
- [5] Read Euler, he is the Master of us all…, SciHi Blog, September 18, 2015.
- [6] Marquis de Condorcet at zbMATH
- [7] Marquis de Condorcet at Wikidata
- [8] Works by or about Marquis de Condorcet at Internet Archive
- [9] Condorcet Jury Theorem, Micro-Lectures Wirtschaftspolitik @ youtube
- [10] Timeline of Voting Theorists, via DBpedia and Wikidata